



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

MW

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,364	01/14/2002	Joachim Wagenblast	Mo6655/LeA 33,721	5085
157	7590	03/01/2004		EXAMINER
BAYER POLYMERS LLC 100 BAYER ROAD PITTSBURGH, PA 15205				NORDMEYER, PATRICIA L
			ART UNIT	PAPER NUMBER
				1772

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/047,364	WAGENBLAST ET AL.
	Examiner	Art Unit
	Patricia L. Nordmeyer	1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 05 January 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-15 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 5, 2004 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 – 3 and 5 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bien (USPN 4,973,102) in view of Burns et al. (USPN 3,458,618).

Bien discloses a core body made from metal with a plurality of perforations (Column 5, lines 58 – 60 and Figures 3 and 5, #16). A plastic part made from thermoplastic material rests against the metal body (Column 6, lines 1 – 4 and Figures 3 and 5, #14). The two pieces are joined together by joining elements, bolts (Column 5, lines 66 – 68 and Figure 4, #39) or rivets (Figure 4, #72) that extend perpendicularly through the perforations. The openings and joining elements allow the plastic panel to slide relative to the metal substructure due to different

Art Unit: 1772

thermal expansion characteristics (Column 3, lines 11 – 17). The metal strip contains elongated holes (Figure 3 and 6, #24a-d and Column 5, lines 46 – 48), which allows for thermal expansion of the plastic part (Column 4, lines 12 – 17). As can be seen in Figure 5, the openings have a larger dimension in both the x and y directions than the joining elements to allow for expansion. A circular hole (Figure 6, #27) exists in the metal strip as a fixed joining element since both holes have matching diameters (Column 7, lines 60 – 62). The article formed with the composite of plastic and metal is a structural article such as a part of an automotive vehicle body (Column 1, lines 5 – 11). However, Bien fails to disclose the joining elements being thermoplastic rivets that are continuous with said plastic part, the thermoplastics material of the plastic body being selected from polyamide, polyester, polyolefin, styrene copolymer, polycarbonate, polyphenylene oxide, polyphenylene sulfide, polyimide, polysulfone and polyetheretherketone, and the plastic rivet joining elements have a rivet shaft and a rivet head, said rivet shaft extending through said perforation and said head forming said interlocking engagement between the core body and plastics part that is perpendicular to the plane of the core body.

Burns et al. teach polyamide and polyolefin material (Column 5, lines 14 to Column 6, line 3) used to form continuous thermoplastic rivets (Figure 4 and 6) with the plastic upper member (Column 1, lines 17 – 18) and the metal lower member, which contains openings (Column 2, lines 25 – 31), wherein the rivet has a head and shaft, where the shaft extends through the opening in the lower member (Figures 4 and 6) for the purpose of forming an interlocking engagement between the two pieces without using separate pieces of material to ensure attachment.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the continuous thermoplastic rivets in Bien in order to form an interlocking engagement between the two pieces without using separate pieces of material to ensure attachment as taught by Burns et al.

Regarding the limitation of injection molding the plastic portion on a part of the core body and the joining elements being formed at the same time in claim 9 and the limitation of prior to injection molding, the perforations being filled by removable cores to inhibit the edges of the perforations being embedded in plastics and then removing the cores in claim 10, the determination of patentability for a product claim with a process limitation is based on the product itself and not on the method of production. In this case, the limitation of injection molding the connection elements is a method of production and therefore does not determine the patentability of the product itself. The method of forming the product is not germane to the issue of the patentability of the product itself. MPEP 2113.

Regarding the limitation of the thermoplastic rivets are solid in claim 15, the prior art element, the hollow thermoplastic rivet, is a structural equivalent of the corresponding element, the solid thermoplastic element, disclosed in the specification since both elements are carrying out the same function, connecting a metal material to a thermoplastic material. MPEP 2183.

Art Unit: 1772

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bien (USPN 4,973,102) in view of Burns et al. (USPN 3,458,618) as applied to claims 1 – 3 and 5 – 15 above, and further in view of Cheron et al. (USPN 6,547,317).

Bien, as modified with Burns et al., discloses the claimed composite material made a high strength core body and a thermoplastic material abutting a portion of the body. However, the modified Bien fails to disclose the plastic part forming a rib structure having a plurality of intersecting ribs, said joining elements being located at the intersections of said ribs.

Cheron et al. teaches a rib structure having a plurality of intersecting ribs (Figures 8 and 9) made from thermoplastic material (Column 2, lines 56 – 58) where the thermoplastic material is attached to metal reinforcement (Column 2, lines 51 – 52) with a variety of fasteners (Figures 10A – 11 and 13A – 13C) at intersection (Column 2, lines 11 – 15) for the purpose of reinforcing the plastic part in a structural part of a motor vehicle.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the joining element at the intersection of the plurality of ribs in the modified Bien in order to reinforce the plastic part in a structural part of a motor vehicle as taught by Cheron et al.

Response to Arguments

5. Applicant's arguments filed January 4, 2004 have been fully considered but they are not persuasive.

6. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to Applicant's argument that neither Bien nor Burns et al. provide the requisite disclosure, teaching or suggestion that would motivate a skilled artisan to combine or otherwise modify their respective disclosures, one of ordinary skill in the art would be motivated to combine the prior art since both solve the problem of combining a core body made of metal with a part made of thermoplastic. Even though the methods used by the prior art are different, they are solving the same problem with the use of different types of rivets. The metal rivet of Bien is performing an equivalent function to the thermoplastic rivet of Burns et al. by attaching a metal piece to a thermoplastic piece through a hole in the metal. It would be obvious to one of ordinary skill in the art to replace the metal rivet with thermoplastic rivet since it would be using less material and fewer parts to make the connection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Nordmeyer whose telephone number is (571) 272-1496. The examiner can normally be reached on Mon.-Thurs. from 7:00-4:30 & alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patricia L. Nordmeyer
Examiner
Art Unit 1772

pln
pln


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

2/21/04